CONGRESSMAN SHERWOOD BOEHLERT (R-NY)
SPEECH TO ENGINEERING SOCIETIES
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It's a pleasure to be here this afternoon. This is an ideal time for you to have come to Washington. The appropriations process is just about to begin, so this is a critical time to try to influence the funding levels for science and engineering.

And we can use all the help we can get. Those of us who are advocates for science and engineering – which is to say all of us in this room – have our work cut out for us. That's not because the Congress or the Administration or anyone else in Washington is anti-science. It's because of the macroeconomic situation – specifically the large deficit and the limitations on domestic spending.

So let me step back a moment and put the science and engineering funding situation in perspective.

The first point to be made about science policy is perhaps the most remarkable and most overlooked: that's the strong, bipartisan support for funding research and development (R&D). While that consensus is perhaps wider than it is deep, it is still powerful and in many ways unlikely. After all, support for R&D rarely is an issue on the campaign trail, and scientific organizations are hardly the most potent lobbyists in town.

But the belief that R&D underlies our nation's economic success is almost an article of faith these days, and it spans the political spectrum. In an unprecedentedly polarized Congress, the consensus on R&D is especially conspicuous. Moreover, the consensus does not seem to be adversely affected by disputes over any particular aspect of science.

So individual Members of Congress may take issue with conclusions about climate change, or may question individual grants related to sex research, or may have doubts or worse about evolution, but that hasn't seemed to erode the general good will toward research.

I had a meeting a few weeks ago with one of the most conservative Members of the House, who happens to be on the Appropriations Committee, and he could barely stay seated he was so jazzed up talking about the importance of science. Now his level of enthusiasm and knowledge – he's an avid reader of Science and Nature – are not typical, but his attitude of support was.

And the reason that the House, led by Tom DeLay, reorganized the Appropriations subcommittees this year was to put science in a more favored position. Mr. DeLay was particularly interested in NASA, but he also wanted science more generally to be better positioned to get a larger piece of the federal pie.

And that approach seems to be working. The new Science, Commerce, Justice, State Appropriations Subcommittee – that's the panel that controls spending for NSF, NASA, NOAA and NIST, to use some of our favorite acronyms – that panel got a healthier spending allocation than did some other Appropriations subcommittees. The panel will have about half a billion dollars more than the President has proposed to spend on all its agencies. Of course, the needs of those agencies are significantly greater than the funds available, but many subcommittees did not get enough even to fund the President's request.

The positive attitudes toward funding science also extend to the White House, where science fared better than any other non-defense related area of domestic discretionary spending in the President's proposed budget for the next fiscal year.

Now the problem with all this, of course, is that you can't take attitudes to the bank. And because the overall economic situation is so constrained, the outlook for science spending over the next few years is, frankly, pretty grim, even with the decent Science Subcommittee allocation for this year.

Many of us are trying to improve that outlook, but unless the overall budget picture improves, we're only going to be successful at the margins.

How bad do things look? Well, the National Science Foundation (NSF), in many ways our flagship science agency, was cut this year for the first time in decades, and the proposed 2.4 percent increase for next year wouldn't even get the agency back to its fiscal 2004 budget level.

Worse still, that 2.4 percent figure is illusory. It includes a budget transfer from the Coast Guard for icebreaking services NSF already gets in Antarctica, so that money can't be used for anything new. And I'm particularly disturbed by the proposed cut in NSF's education programs, which many of us in Congress view as an essential part of the agency's mission.

The picture is even gloomier at the Department of Energy's Office of Science, a lead funder of the physical sciences, which, as you know, have seen their funding slip relative to the biological sciences. Last year, Congress increased the Office's spending despite a bad budget request, and I hope that will happen again.

But even if the Office receives more than the President has proposed, it's unlikely to see its budget increase in real dollars next year. That's going to start forcing some hard choices about whether it can keep all its facilities in operation. Already, many of its National Laboratory user facilities are up and running only a small fraction of the year.

The National Institute of Standards and Technology (NIST) looks to fare better if the President's budget is approved. The budget proposes to increase funding for NIST's internal laboratories by about 12 percent, a healthy increase even after factoring in cuts made two years ago. But the extramural programs at NIST – the Manufacturing Extension Partnership (MEP) and the Advanced Technology Program (ATP) are in trouble.

MEP may once again get full funding despite proposed cuts because it has broad support, but ATP, which I helped create, may fight its last fight. Some ATP monies are spent internally at NIST and there could be close-down costs, so if ATP is actually terminated, it will reduce the impact of the increase for the NIST laboratories.

NIST is a small agency but it is vital to U.S. competitiveness and plays a key role in cybersecurity, homeland security, voting technology standards and other national concerns. We're having a subcommittee hearing tomorrow on what needs to be done to enable the U.S. to counter the use of technical standards as trade barriers. NIST has to be a critical part of that strategy.

The budget for the National Oceanic and Atmospheric Administration (NOAA) is a bit hard to predict right now. The overall budget request for NOAA is not bad – but that's only if one accepts the Administration assumption that there will be no earmarks.

The appropriators are trying to reduce earmarking, which has exploded in recent years, but the outcome of that effort won't be known for months – until final spending bills emerge from conference.

In the meantime, we on the Science Committee are taking a step that has long been recommended, we're writing an organic act – a fundamental statute – for NOAA, which was created through Executive Order and has never had clear and unified direction from Congress. We'll be reporting out our bill, which was introduced by Vern Ehlers, this week or next, and it will strengthen the role of science within NOAA. We've also already reported out a bill to strengthen NOAA's tsunami programs, using what we learned in the wake of last December's tragedy.

The outlook for the National Aeronautics and Space Administration (NASA) is also problematic. The President has proposed a 2.4 percent increase for the Agency – too much, I believe, given the state of other science agencies. But it's not as if a 2.4 percent increase would leave NASA "rolling in dough."

Even if NASA gets its full request, which is not unlikely, it will have to struggle to keep a balanced set of programs on course.

My biggest concern with NASA, as I've said often, is not the overall level of its budget, but the balance within that budget. I support the President's Vision for Space Exploration. I think we need to move past the Space Shuttle and Space Station programs and get back to the moon. But I don't think that should be NASA's sole mission.

NASA's highly successful earth science, space science and aeronautics programs have to be allowed to flourish – "continue to flourish" would be the right phrase for the space science programs.

Our Science Committee will be working on a NASA authorization bill, which we plan to report out of Committee no later than the end of July. And I would expect that bill would help set priorities at NASA.

One real bright spot for NASA, by the way, is the appointment of Mike Griffin to head the agency. Mike has long been an advisor to our Committee, and I had a good meeting with him a few weeks ago, shortly after his confirmation. He is smart, creative, energetic and candid, and he knows the agency inside and out. And he's got his work cut out for him.

One final thought on science spending. We don't just review the science budget with an eye on individual agencies, but also with an eye on how areas of research are faring. For example, we're very concerned that computer science research, especially more basic research, may be getting short shrift. And we also continue to be concerned about whether cybersecurity research is getting sufficient focus.

The Science Committee has been a leader in calling for greater attention to cybersecurity research to improve the level of protection over the long-term. We're going to have a hearing this Thursday with the White House and DARPA and some outside experts, to try to better gauge the state of computer science and whether the federal government is providing enough funding for the right areas of research.

So we have a tough year ahead of us in trying to make sure that Congressional good will toward science is reflected in actual dollars. In the first George Bush's phrase, "We have more will than wallet." But as I noted at the outset, the appropriations cycle is just beginning, and we don't know yet where things will end up.

I should say that the appropriations chairs who are in charge of much of science spending, Frank Wolf of Virginia and David Hobson of Ohio, are strong proponents of science and will do all they can to see that it is treated as well as possible. We work with them extremely closely. Their initial bills should be out of subcommittee by Memorial Day. But no one can predict a specific outcome at this point.

Now while funding sets the stage for everything in science policy, it obviously isn't the only issue we all face. The list of other matters is long and perhaps we can talk about some of them when I take questions. For now, I just want to address two issues.

The first is visa policy. As I hope you know, our Committee took the lead in pressing the Administration to rethink the crackdown on visas that occurred after the September 11 attacks. Obviously, we need to do a better job of securing our borders than we did before the attacks.

But casting such a wide net that we delay and discourage every science student and expert from coming to our shores is counterproductive in the extreme. First, by focusing on everyone, we're less likely to focus on the potential problem cases. Second, we need foreign students and scientists and engineers here to advance our security interests. We've never gone it alone in those fields, and we certainly can't now.

The Administration has recognized this. As the Government Accountability Office (GAO) studies we've requested have shown, the visa backlog has pretty much been cleaned up. Waiting times are way down. We need to continue to be vigilant, but we are back to having a balanced visa policy. Now we just have to do more to make sure the world knows it.

The second issue is export control policy. I know many of you are closely monitoring the Commerce Department's apparent interest in extending export controls to basic research. I assure you that the Science Committee is watching closely as well, and so is the White House Office of Science and Technology Policy. It's too early to know how things will turn out, but it is fair to say that there won't be any precipitous action. The policy proposal is being closely reviewed and publicly aired – most recently, last week at a session at the National Academies.

So I'll conclude where I began. This is an important time for all of you to be in this town. These really are the best of times and the worst of times for science and engineering. They're the best of times because we are on the verge of so many discoveries and advances in so many different fields. We have more tools and a greater understanding of the natural and physical world than at any time in human history. And the political establishment has a keen sense of the potential benefits from the discoveries that await us.

But at the same time – funding is limited, skeptics about science raise new concerns, and worst of all, our science, technology, engineering and mathematics (STEM) education system seems to be failing us. I chose not to focus on that issue in today's speech, but it's clearly the ultimate problem facing all of us.

So we do indeed have our work cut out for us. What we do now will determine whether our time is seen as a transition to an era of scientific advance or retraction. There's no reason it can't be a bridge to advancement. Thank you.